We claim:

1. A peptide comprising one or more amino-acid sequences selected from the group consisting of:

SEQ. ID NO. 1,

SEQ. ID NO. 2,

SEQ. ID NO. 3, and

SEQ. ID NO. 4

or any antigenically related variants of said sequences which have an identity of at least 75% and are capable of immunologically mimicking the corresponding antigenic determinant site of the P5-like fimbrin protein of non-typeable *Haemophilus influenzae*, with the proviso that the antigenically related variants do not include those peptides provided in SEQ ID NO:5 or SEQ ID NO:6.

2. The peptide of claim 1 which comprises the amino-acid sequence provided in SEQ ID NO:1.

3. The peptide of claim 1 which comprises the amino-acid sequence provided in SEQ ID NO:2.

4. The peptide of claim 1 which comprises the amino-acid sequence provided in SEQ ID NO:3.

5. The peptide of claim 1 which comprises the amino-acid sequence provided in SEQ ID NO:4.

6. A chimeric polypeptide comprising one or more peptides of claims 1-5 covalently linked to a carrier polypeptide which comprises at least one T-cell epitope.

7. The chimeric polypeptide of claim 6 which also comprises a purification tag peptide sequence.

8. The chimeric polypeptide of claim 7 wherein the purification tag peptide sequence is a Histidine-tag sequence.

9. The chimeric polypeptide of claim 6 wherein the carrier polypeptide is lipoprotein D.

10. The chimeric polypeptide of claim 6 wherein the amino acid sequences of the peptides used are selected from the group consisting of SEQ ID NO:1, 2, and 3.

11. A chimeric polypeptide comprising three LB1(f) subunits and lipoprotein D, wherein the amino acid sequences of the LB1(f) subunits used are provided in SEQ ID NO: 2, 3 and 5.

12. The chimeric polypeptide of claim 11 which also comprises a Histidine purification tag sequence.

13. The chimeric polypeptide of claim 11 wherein the order of the peptide components from the N-terminus of the polypeptide is: lipoprotein D, LB1(f) subunit (SEQ ID NO: 2), LB1(f) subunit (SEQ ID NO: 5), and LB1(f) subunit (SEQ ID NO: 3).

14. The chimeric polypeptide of claim 13 wherein the amino acid sequence of the polypeptide is provided in Figure 5.

15. A vaccine composition comprising an immunogenic amount of at least one peptide or polypeptide from claims 1-14 in a pharmaceutically acceptable excipient, and an optional adjuvant.

16. The use of an immunogenic amount of at least one peptide or polypeptide from claims 1-14 in a pharmaceutically acceptable excipient, and an optional adjuvant, to prevent or treat *Haemophilus influenzae* disease.

17. The use of claim 16 wherein the *Haemophilus influenzae* disease is *otitis media*, sinusitis, conjunctivitis, or lower respiratory tract infection.

18. A method of inducing an immune response in a mammal susceptible to *Haemophilus influenzae* infection comprising the administration to the mammal of an effective amount of the vaccine according to claim 15.

19. A method of preventing *Haemophilus influenzae* infection comprising the administration to a mammal an effective amount of a vaccine according to claim 15.

20. A DNA or RNA molecule encoding one of the LB1(f) peptides or polypeptides provided in claims 1-14.

21. The DNA or RNA molecule of claim 20 wherein the DNA sequence of said LB1(f) polypeptide is provided in Figure 5.

22. The DNA or RNA molecule of claim 20 or 21 contained within an expression vector, wherein said expression vector is capable of producing said LB1(f) peptide or polypeptide when present in a compatible host cell.

23. A host cell comprising the expression vector of claim 22.

24. A process for producing a LB1(f) peptide or polypeptide comprising culturing the host cell of claim 23 under conditions sufficient for the production of said polypeptide and recovering the LB1(f) peptide or polypeptide.

25. A process for producing a LB1(f) peptide or polypeptide of claim 24 wherein the process comprises the steps of lysing the host cells, and purifying the soluble extract using an immobilised Nickel column step, a cation exchange column step, and a size exclusion column step.

26. A process for producing a host cell which produces a LB1(f) peptide or polypeptide thereof comprising transforming or transfecting a host cell with the expression vector of claim 22 such that the host cell, under appropriate culture conditions, expresses a LB1(f) peptide or polypeptide.

27. A purified antibody which is immunospecific to a peptide provided in claims 1-5.

28. A purified antibody which is immunospecific to a chimeric polypeptide provided in claims 6-14.

29. A method of detecting the presence of *Haemophilus influenzae* in a sample by contacting said sample with the antibody of claim 27 in the presence of an indicator.

30. A method of detecting the presence of *Haemophilus influenzae* in a sample by contacting said sample with a DNA probe or primer constructed to correspond to the wild-type nucleic acid sequence which codes for a LB1(f) peptide of the P5-like fimbrin protein of *Haemophilus influenzae*, characterised in that the probe is selected from the group consisting of gene sequences as provided in Tables 6-8.

31. A reagent kit for diagnosing infection with *Haemophilus influenzae* in a mammal comprising the DNA probes of claim 30 or a LB1(f) peptide of claims 1-5 or an antibody of claim 27.